

WHAT IS CLAIMED IS:

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1. A photovoltaic module comprising a substrate,
a semiconductor layer arranged on one of the principal
surfaces of the substrate, divided into a plurality of
5 sections and sealed by a encapsulation material,
characterized in that

10 said encapsulation material is arranged on said
principal surface of the substrate without its end face
projecting outwardly beyond the end face of the
substrate.

2. A photovoltaic module according to claim 1,
wherein the end face of the encapsulation material is
realized in the form of a first slope.

15 3. A photovoltaic module according to claim 1,
wherein the end face of the substrate is realized in
the form of a second slope located on the plane of the
first slope of the encapsulation material.

20 4. A photovoltaic module comprising:
a transparent insulating substrate:
photovoltaic cells formed by sequentially laying
a transparent electrode layer, a semiconductor
photoelectric conversion layer and rear electrode
layer; and

25 a sealing member for sealing the rear surface of
said photovoltaic cells;

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said sealing member including a principal
encapsulation material covering a central area of the

rear surface of said photovoltaic cells and a steam barrier material covering a peripheral area of the rear surface of said photovoltaic cells, said steam barrier member showing a steam permeability not greater than
5 1 g/m² day per film thickness of 100 μ m.

5. Photovoltaic module comprising:

a transparent substrate:

photovoltaic cells formed on the rear surface of said transparent substrate;

an output lead-out wire connected to said photovoltaic cells;

a filling member for sealing said photovoltaic cells; and

a rear surface encapsulation material arranged on
15 the rear surface of said filling member;

said output lead-out wire being drawn to the rear surface of said rear surface encapsulation material from the inside of said filling member by way of an output lead-out section, the filling member of said
20 output lead-out section being not directly exposed to the atmosphere.

6. A method of manufacturing a photovoltaic module comprising:

a step of laying sheet of encapsulation resin
25 adapted to be softened, molten and cured by heat on the rear surface of a photovoltaic sub-module having a plurality of unit cells tightly arranged on

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a step of cutting off the portion of the encapsulation resin extending from said glass substrate as a result of the melt of said encapsulation resin along with the corresponding portion of the protection film under the condition of keeping the temperature of the extending portion of said encapsulation resin above the softening point of the encapsulation resin.

a step of laying a sheet of encapsulation resin

25 a step of bonding said sheet of encapsulation resin and said protection film to said photovoltaic sub-module under pressure in vacuum, while heating then in a vacuum heating/bonding apparatus;

a step of taking said photovoltaic sub-module out of said vacuum heating/bonding apparatus on the way of curing said encapsulation resin;

a step of cutting off the portion of the encapsulation resin extending from said glass substrate as result of the melt of said heating/bonding along with the corresponding portion of the protection film; and

a step of heating and completely curing said encapsulation resin in a separate heating apparatus.

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